UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/803,283	03/18/2004	Shankar Pal	MSFT-2930/304868.01	5646

41505 7590 03/21/2007 WOODCOCK WASHBURN LLP (MICROSOFT CORPORATION) CIRA CENTRE, 12TH FLOOR 2929 ARCH STREET PHILADELPHIA, PA 19104-2891	**EXAMINER** RAYYAN, SUSAN F

ART UNIT	PAPER NUMBER
2167	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/21/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

	Application No.	Applicant(s)
	10/803,283	PAL ET AL.
Office Action Summary	Examiner	Art Unit	
	Susan F. Rayyan	2167	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>20 December 2006</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   Claims 1-23 are pending.

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by
> another filed in the United States before the invention by the applicant for patent or (2) a patent
> granted on an application for patent by another filed in the United States before the invention by the
> applicant for patent, except that an international application filed under the treaty defined in section
> 351(a) shall have the effects for purposes of this subsection of an application filed in the United States
> only if the international application designated the United States and was published under Article 21(2)
> of such treaty in the English language.

Claims 1-23 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent

Publication Number 2003/0101169 issued to Vadiraja Bhatt et al ("Bhatt").

As per claim 1 Bhatt anticipates:

A method for compiling a query including an extensible markup language based

expression (Figure 8, element 802), the method comprising:

transforming an abstract syntax tree corresponding to the expression into a unified tree

including extensible markup language based algebra operations (paragraph 80-82, 154,

receives and parses a query received from an application and generates a logical tree

which includes algebraic operations);

and mapping the extensible markup language based algebra operations in the unified

tree to relational algebra based operations in a relational tree (paragraph 120,

155,Figure 8, element 803, the logical tree will be translated by the query translation

module which includes algebraic operations);

wherein the extendable markup language based algebra operations and the relational

algebra based operations comprise instructions for modifying the data that is stored in

the node of the instance of the extendable markup language schema (paragraph 74-75,

XML data transform module converts or transforms (modifies) the XML document into a

transformed document referred to as SybXMLstream. The SybXMLstream object

contains data from the transformed (modified) document together with auxiliary

structures).

As per claim 2, same as claim arguments above and Bhatt anticipates:

wherein transforming the abstract syntax tree comprises:

recursively traversing the abstract syntax tree (paragraph 84-89, 121);

generating a unified sub-tree for each abstract syntax tree node, the sub-tree including

at least one corresponding extensible markup language based algebra operation

and inserting the sub-tree into the unified tree (paragraph 90-91, transformation

process includes algebraic operations) .

As per claim 3, same as claim arguments above and Bhatt anticipates:

recursively traversing the unified tree (paragraph 99, 121);

generating a relational sub-tree for each unified tree node, the sub-tree including at

least one corresponding relational algebra based operation (paragraph 101, the query

translation module receives as input the tree generated by the XQL parser and

generates a physical operator tree which includes algebraic based operations)

and inserting the sub-tree into the relational tree (paragraph 101).

As per claim 4, same as claim arguments above and Bhatt anticipates:

further comprising parsing the query to yield the extensible markup language based

expression (paragraph 74).

As per claim 5, same as claim arguments above and Bhatt anticipates:

further comprising parsing the extensible markup language based expression to yield

the abstract syntax tree (paragraph 74).

As per claim 6, same as claim arguments above and Bhatt anticipates:

further comprising generating a query plan according to the relational tree (paragraph

121, Figure 6).

As per claim 7, same as claim arguments above and Bhatt anticipates:

further comprising submitting the query plan to a query processor for execution by the

query processor (paragraph 121, Figure 6).

As per claim 8, same as claim arguments above and Bhatt anticipates:

comprising mapping the extensible markup language based algebra operations in the

unified tree to relational algebra based operations with nested table abstraction in the

relational tree (paragraph 155).

Claims 9-23 limitations are rejected based on the same rationale as claims 1-8 and the

limitation "enables a parent to descendent relationship to be established among

instances of nodes in an extendable markup language schemas without compiling

separate lists corresponding to each of the nodes" of independent claims 16, 20 are

anticipated by Bhatt at paragraph 75, lines 11-18, as link index stores linkage

information about the parent-child relationship of nodes. This linkage information

enables source document to recompose. The path index stores hierarchical information

about particular items of data in the order that these items occur in the source

document.

Response to Arguments

3.   Applicant's arguments filed December 20, 2006 have been fully considered but

they are not persuasive.

Applicant argues prior art of record fails to teach XQL engine can translate

queries with instructions to modify XML data in the XML store. Examiner finds Bhatt

teaches this limitation at paragraphs 74-75, as XML data transform module converts or

transforms (modifies) the XML document into a transformed document referred to as

SybXMLstream. The SybXMLstream object contains data from the transformed

(modified) document together with auxiliary structures.

Applicant argues Bhatt does not teach "a nested table abstraction operation that

enables a parent to descendent relationship to be established among instances of

nodes in an extendable markup language schema without compiling separate lists

corresponding to each of the nodes". Examiner find Bhatt does teach this limitation at

paragraph 75, lines 11-18,as link index stores linkage information about the parent-child

relationship of nodes. This linkage information enables source document to recompose.

The path index stores hierarchical information about particular items of data in the order

that these items occur in the source

Conclusion

4.   Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

Contact Information

5.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Susan Rayyan whose telephone number is (571) 272-

1675. The examiner can normally be reached M-F: 8am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, John Cottingham can be reached on (571) 272-7079. The fax phone

number for the organization where this application or proceeding is assigned is

703-872-9306.

Information regarding the status of an application may be obtained from

the Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR

only. For more information about the PAIR system, see http://pair-

direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Susan Rayyan

March 17, 2007

CHONG H. KIM
PRIMARY EXAMINER